



Federal Communications Commission  
Washington, D.C. 20554

May 8, 2012

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

Re: Measuring Broadband American Program, GN Docket No. 12-264

Dear Ms. Dortch:

On May 2, 2013, representatives of broadband providers, public interest groups, companies, and other organizations met in person and via conference call with Commission staff to discuss the Commission's Measuring Broadband America Program 2013 wireline broadband performance measurement efforts and developments on targeted special study and report focused on in-home performance bottlenecks and wireless LAN performance.<sup>1</sup>

Mr. James Miller, Senior Attorney Advisor, Electromagnetic Compatibility Division (EMCD) began the meeting by introducing Neha Rawal, lead researcher of the North Carolina State University Institute Advanced Analytics team. Ms. Rawal presented the final report of the team's analysis of the FCC's methodology and statistical approaches. Walter Johnston, Chief EMCD explained that the research team's work represents an extension of the MBA program's broad commitment to open and transparent technology and approaches. The research team conducted a third-party independent review of the Commission's data collection and sampling techniques, the processing and analysis of data reported in the July 2012 and February 2013 broadband performance reports, and also explored ways to present performance data to consumers in ways that could be more useful and easier to understand.

Ms. Rawal presented the team's major observations from their review of the 2012 datasets that peak usage tends more heavily to be on weekends during prime time hours, performance can be influenced heavily by factors other than a subscribers carrier, and that presenting performance data using metrics on consistency of speed or other performance may have value in addition to ratios of advertised vs. actual speeds. Ms. Rawal discussed a proposed "consistent speed" metric to describe the consistency of speed measurements for some percentage distribution of the measurement panel. The approach was discussed as a refinement of the FCC's reporting of cumulative distributions of performance. Participants discussed that the approach presents the percentage of panelists likely to experience a particular performance criteria in a way that might be easier to understand for consumers. Ms. Rawal discussed that a consistent speed could be defined to capture different targets for both a particular target datarate or other performance characteristics, as well as the portion of the panel achieving the targeted performance criteria.

---

<sup>1</sup> A list of attendees and all documents circulated at the meeting are attached to this filing in GN Docket No. 12-264.

Ms. Rawal also presented analysis of the kinds of combinations of performance characteristics that most influenced the variations of broadband performance reflected in the data collected by the panel in 2012. Ms. Rawal discussed that combining subscribers from separate tiers and ISPs into larger pools of speed tiers, broadband providers, or grouping can support minimum numbers of sample sizes for statistically relevant inferences by state in many cases. Participants discussed the value of considering some of the data presentations in upcoming reports and review of the panel and feasibility of adding panelists for specific tiers and providers in upcoming data collection.

Mr. Miller introduced Nick Feamster, Assoc. Professor of Georgia Technical Institute (GATech) to present a proposal for a report and special study on in-home performance bottlenecks for the FCC's first special broadband performance study. Prof. Feamster discussed research at GATech on statistical sampling models for identifying and distinguishing the source of broadband performance problems, such as congestion, in a consumer's home networks. Prof. Feamster described initial research conclusions showing that above certain datarates a majority of congestion events can be attributed to in-home performance issues. Participants discussed that a more detailed discussion of the technology and review of potential privacy concerns would be warranted. Mr. Miller discussed that in-home performance had been discussed in past meetings as a valuable potential topic and explained that Prof. Feamster's research appeared to be a good candidate for consideration for the FCC's first special study. Mr. Miller indicated that a meeting would be arranged in the coming weeks to review the technical implementation and logistics, and a second meeting would follow to discuss possible privacy topics for the technical proposal.

Mr. Miller introduced Alex Salter, CEO SamKnows LTD. who discussed major milestones for the 2013 fixed measurement schedule, including targeted milestones in August 2013 for the proposed special interest study on in-home performance and the Measuring Broadband America measurement collection to occur in September 2013. Mr. Salter discussed that validation of subscribers in advance of the September 2013 collection month might begin in July and could be timed to support the data processing and analysis of data collected in the special study to avoid imposing additional burdens on supporting broadband providers.

Mr. Miller thanks participants for their participation and reiterated that a meeting scheduler would be circulated in the coming weeks for a meeting discussing the technical and privacy aspects of the proposed special study.

Sincerely,

A handwritten signature in black ink, appearing to be 'James Miller', written over a horizontal line.

James Miller, Senior Attorney Advisor  
Electromagnetic Compatibility Division/OET  
Federal Communications Commission